

SEQUENCE LISTING

<110> Shimkets, Richard
Lichenstein, Henri
Vernet, Corine
Fernandes, Elma

<120> NOVEL POLYPEPTIDES AND NUCLEIC ACIDS ENCODING SAME

<130> 15966-606

<140> 09/715,417
<141> 2000-11-16

<150> 60/166,336
<151> 1999-11-19

<150> 60/167,785
<151> 1999-11-29

<150> 60/187,844
<151> 2000-03-08

<160> 38

<170> PatentIn Ver. 2.1

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35						40							45		
Ser	Arg	Arg	Ser	Ile	Val	Pro	Ser	Ser	Pro	Gln	Pro	Gln	Arg	Ala	Gln
50						55							60		
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65						70				75			80		
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85						90							95		
Ser	Val	Ser	Ser	Cys	Pro	Ala	Leu	Tyr	Arg	Asn	Glu	Glu	Glu	Glu	
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 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 35 40 45

Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala His Ala Thr Cys Lys
 50 55 60

Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr Glu Gly Asp Gly Ile
 65 70 75 80

Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp Asn Gly Gly Cys Ala
 85 90 95

Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys Val Ser Cys Ser Cys
 100 105 110

Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys Thr Glu Ile Asp Pro
 115 120 125

Cys Ala Asp Gly Leu Asn Gly Cys His Glu His Ala Thr Cys Lys
 130 135 140

Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys Lys Ser His Tyr Val
 145 150 155 160

Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu Pro Ile Asp Arg Cys
 165 170 175

Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala Lys Cys Ala Asp Leu
 180 185 190

His Phe Gln Asp Thr Thr Val Gly Val Phe His Leu Arg Ser Pro Leu
 195 200 205

Gly Gln Tyr Lys Leu Thr Phe Asp Lys Ala Arg Glu Ala Cys Ala Asn

210

215

220

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Ala Tyr Pro Thr Ala Phe Ala Ser Gln Asn Cys Gly Ser Gly Val Val
 260 265 270

Gly Ile Val Asp Tyr Gly Pro Arg Pro Asn Lys Ser Glu Met Trp Asp
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<211> 1804

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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35 40 45
Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala His Ala Thr Cys Lys
50 55 60
Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr Glu Gly Asp Gly Ile
65 70 75 80
Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp Asn Gly Gly Cys Ala
85 90 95
Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys Val Ser Cys Ser Cys
100 105 110
Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys Thr Glu Ile Asp Pro
115 120 125
Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu His Ala Thr Cys Lys
130 135 140
Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys Lys Ser His Tyr Val
145 150 155 160
Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu Pro Ile Asp Arg Cys
165 170 175
Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala Lys Cys Val Asp Leu
180 185 190
His Phe Gln Asp Thr Thr Val Gly Val Phe His Leu Arg Ser Pro Leu
195 200 205
Gly Gln Tyr Lys Leu Thr Phe Asp Lys Ala Arg Glu Ala Cys Ala Asn
210 215 220
Glu Ala Ala Thr Met Ala Thr Tyr Asn Gln Leu Ser Tyr Ala Gln Lys
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Arg Glu Glu Lys

<210> 7

<211> 1450
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Leu Arg Ala Leu Gly Arg Arg Leu Ala Val Cys Glu Pro Gly Pro Gly
 35 40 45

 Gln Arg Gly Ala Ala Val Arg Val Cys Arg Gly Arg Gly Arg Ala Gly
 50 55 60

 Gly Ala Gly Arg Arg Asp Gly Arg Ala Ala Leu Gly Gly Pro Thr Ala
 65 70 75 80

Ala Cys Ser Thr Ala Trp Ser Thr Trp Lys Pro Thr Trp Thr Gly Cys
85 90 95

Val Pro Ser Ser Thr Pro Ser Ala Ala Thr Thr Ser Ser Ser Thr Ala
100 105 110

Gln Ala Arg Trp Ser Ser Ala Arg Ile Thr Ala Pro Cys Glu His Leu
115 120 125

Leu Pro Asn Gly Ala Val Gly Pro Gln Ala Asp Cys Arg Pro Pro Arg
130 135 140

Gly Phe Ser Leu Leu His Arg Pro Cys Gln Val His Phe Ser Thr Val
145 150 155 160

Tyr Leu Pro Gly His His Ala Ala Arg Gly Thr Glu Pro Thr Ser Thr
165 170 175

Ser Phe Pro Arg Trp Thr Ser Leu Ser Ile Met Gly Ser Trp Pro Ser
180 185 190

Thr Trp Thr Thr Gln Arg Phe Trp Thr Ser Pro Thr Cys Leu Thr
195 200 205

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210 215 220

Ser
225

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<212> DNA
<213> Homo sapiens

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<211> 198
<212> PRT
<213> Homo sapiens

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Ser Asn Val His Asn Leu Asn Ser Val Lys Glu Ser Pro His Glu Arg
50 55 60
Met His Arg His Ile Glu Leu Ala Trp Ala Phe Ser Thr Val Ile Gly
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Thr Leu Leu Phe Leu Ala Glu Val Val Leu Leu Cys Trp Val Lys Phe
85 90 95
Leu Pro Leu Lys Lys Gln Pro Gly Gln Pro Arg Pro Thr Ser Lys Pro
100 105 110
Pro Ala Ser Gly Ala Ala Ala Asn Val Ser Thr Ser Gly Ile Thr Pro
115 120 125
Gly Gln Ala Ala Ala Ile Ala Ser Thr Thr Ile Met Val Pro Phe Gly
130 135 140
Leu Ile Phe Ile Val Phe Ala Val His Phe Tyr Arg Ser Leu Val Ser
145 150 155 160
His Lys Thr Asp Arg Gln Phe Gln Glu Leu Asn Glu Leu Ala Glu Phe
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180 185 190
Pro Gly Ser His Tyr Ala
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<210> 11
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<212> DNA
<213> Homo sapiens

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<210> 12
 <211> 669
 <212> PRT
 <213> Homo sapiens

<400> 12
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Ser Leu His Ser Ile Ile Leu Thr Thr Lys Leu Thr Ser Gln Ser Leu
 20 25 30

Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys
 35 40 45

Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp

50

55

60

Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
 65 70 75 80

Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn
 85 90 95

Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val
 100 105 110

Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile
 115 120 125

Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp
 130 135 140

Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser
 145 150 155 160

Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr
 165 170 175

Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile
 180 185 190

Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln
 195 200 205

Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln
 210 215 220

Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg
 225 230 235 240

Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys
 245 250 255

Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp
 260 265 270

Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg
 275 280 285

Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu
 290 295 300

Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp
 305 310 315 320

Ala Ser Gly Glu Cys Gly Ser Cys Val Asn Thr Pro Ser Cys Pro Arg
 325 330 335

Trp Ser Lys Pro Lys Gly Val Lys Gln Lys Cys Leu Tyr Asn Leu Pro
 340 345 350

Phe Lys Arg Asn Leu Glu Gly Cys Arg Glu Arg Cys Ser Leu Val Ile
 355 360 365

Gln Ile Pro Arg Cys Cys Lys Gly Tyr Phe Gly Arg Asp Cys Gln Ala
 370 375 380

Cys Pro Gly Gly Pro Val Ala Pro Cys Asn Asn Arg Gly Val Cys Leu
 385 390 395 400

Asp Gln Tyr Ser Ala Thr Gly Glu Cys Lys Cys Asn Thr Gly Phe Asn
 405 410 415

Gly Thr Ala Cys Glu Met Cys Trp Pro Gly Arg Phe Gly Pro Asp Cys
 420 425 430

Leu Pro Cys Gly Cys Ser Asp His Gly Gln Cys Asp Asp Gly Ile Thr
 435 440 445

Gly Ser Gly Gln Cys Leu Cys Glu Thr Gly Trp Thr Gly Pro Ser Cys
 450 455 460

Asp Thr Gln Ala Val Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala
 465 470 475 480

His Ala Thr Cys Lys Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr
 485 490 495

Glu Gly Asp Gly Ile Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp
 500 505 510

Asn Gly Gly Cys Ala Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys
 515 520 525

Val Ser Cys Ser Cys Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys
 530 535 540

Thr Glu Ile Asp Pro Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu
 545 550 555 560

His Ala Thr Cys Lys Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys
 565 570 575

Lys Ser His Tyr Val Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu
 580 585 590

Pro Ile Asp Arg Cys Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala
 595 600 605

Lys Cys Val Asp Leu His Phe Gln Asp Thr Thr Val Gly Val Phe His
 610 615 620

Leu Arg Ser Pro Leu Gly Gln Tyr Lys Leu Thr Phe Asp Lys Ala Arg
 625 630 635 640

Glu Ala Cys Ala Asn Glu Ala Ala Thr Met Ala Thr Tyr Asn Gln Leu
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Ser Tyr Ala Gln Lys Thr Trp Tyr Ser Phe Thr Lys Glu
 660 665

<210> 13
<211> 1624
<212> DNA
<213> Homo sapiens

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tggc 1624

<210> 14
<211> 381
<212> PRT
<213> Homo sapiens

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20 25 30

Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys
35 40 45

Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
50 55 60

Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
65 70 75 80

Val	Leu	Arg	Tyr	His	Val	Val	Ala	Cys	His	Gln	Leu	Leu	Leu	Glu	Asn
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Leu	Lys	Leu	Ile	Ser	Asn	Ala	Thr	Ser	Leu	Gln	Gly	Glu	Pro	Ile	Val
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Ile	Ser	Val	Ser	Gln	Ser	Thr	Val	Tyr	Ile	Asn	Asn	Lys	Ala	Lys	Ile
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Lys	Leu	Leu	Ser	Pro	Lys	Asn	Leu	Leu	Ile	Thr	Pro	Lys	Asp	Asn	Ser
				145			150			155			160		
Gly	Arg	Ile	Leu	Gln	Asn	Leu	Thr	Thr	Leu	Ala	Thr	Asn	Asn	Gly	Tyr
				165			170					175			
Ile	Lys	Phe	Ser	Asn	Leu	Ile	Gln	Asp	Ser	Gly	Leu	Leu	Ser	Val	Ile
				180				185				190			
Thr	Asp	Pro	Ile	His	Thr	Pro	Val	Thr	Leu	Phe	Trp	Pro	Thr	Asp	Gln
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Ala	Leu	His	Ala	Leu	Pro	Ala	Glu	Gln	Gln	Asp	Phe	Leu	Phe	Asn	Gln
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Asp	Asn	Lys	Asp	Lys	Leu	Lys	Glu	Tyr	Leu	Lys	Phe	His	Val	Ile	Arg
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Asp	Ala	Lys	Val	Leu	Ala	Val	Asp	Leu	Pro	Thr	Ser	Thr	Ala	Trp	Lys
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Thr	Leu	Gln	Gly	Ser	Glu	Leu	Ser	Val	Lys	Cys	Gly	Ala	Gly	Arg	Asp
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Ile	Gly	Asp	Leu	Phe	Leu	Asn	Gly	Gln	Thr	Cys	Arg	Ile	Val	Gln	Arg
				275			280				285				
Glu	Leu	Leu	Phe	Asp	Leu	Gly	Val	Ala	Tyr	Gly	Ile	Asp	Cys	Leu	Leu
				290			295			300					
Ile	Asp	Pro	Thr	Leu	Gly	Gly	Arg	Cys	Asp	Thr	Phe	Thr	Thr	Phe	Asp
				305			310			315			320		
Ala	Ser	Gly	Glu	Cys	Gly	Ser	Cys	Val	Asn	Thr	Pro	Ser	Cys	Pro	Arg
				325				330				335			
Trp	Ser	Lys	Pro	Lys	Gly	Val	Lys	Gln	Lys	Cys	Leu	Tyr	Asn	Leu	Pro
				340				345				350			
Phe	Lys	Arg	Asn	Leu	Glu	Gly	Cys	Arg	Glu	Arg	Cys	Ser	Leu	Val	Ile
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<210> 15
<211> 2483
<212> DNA
<213> Homo sapiens

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<211> 669
<212> PRT
<213> Homo sapiens

<400> 16
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Ser Leu His Ser Ile Ile Leu Thr Thr Lys Leu Thr Ser Gln Ser Leu
 20 25 30

Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys
 35 40 45

Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
 50 55 60

Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
 65 70 75 80

Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn
 85 90 95

Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val
 100 105 110

Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile
 115 120 125

Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp
 130 135 140

Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser
 145 150 155 160

Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr
 165 170 175

Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile
 180 185 190

Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln
 195 200 205

Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln
 210 215 220

Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg
 225 230 235 240

Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys
 245 250 255

Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp
 260 265 270

Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg
 275 280 285

Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu
 290 295 300

Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp
 305 310 315 320

Ala Ser Gly Glu Cys Gly Ser Cys Val Asn Thr Pro Ser Cys Pro Arg
 325 330 335

 Trp Ser Lys Pro Lys Gly Val Lys Gln Lys Cys Leu Tyr Asn Leu Pro
 340 345 350

 Phe Lys Arg Asn Leu Glu Gly Cys Arg Glu Arg Cys Ser Leu Val Ile
 355 360 365

 Gln Ile Pro Arg Cys Cys Lys Gly Tyr Phe Gly Arg Asp Cys Gln Ala
 370 375 380

 Cys Pro Gly Gly Pro Asp Ala Pro Cys Asn Asn Arg Gly Val Cys Leu
 385 390 395 400

 Asp Gln Tyr Ser Ala Thr Gly Glu Cys Lys Cys Asn Thr Gly Phe Asn
 405 410 415

 Gly Thr Ala Cys Glu Met Cys Trp Pro Gly Arg Phe Gly Pro Asp Cys
 420 425 430

 Leu Pro Cys Gly Cys Ser Asp His Gly Gln Cys Asp Asp Gly Ile Thr
 435 440 445

 Gly Ser Gly Gln Cys Leu Cys Glu Thr Gly Trp Thr Gly Pro Ser Cys
 450 455 460

 Asp Thr Gln Ala Val Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala
 465 470 475 480

 His Ala Thr Cys Lys Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr
 485 490 495

 Glu Gly Asp Gly Ile Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp
 500 505 510

 Asn Gly Gly Cys Ala Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys
 515 520 525

 Val Ser Cys Ser Cys Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys
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 Thr Glu Ile Asp Pro Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu
 545 550 555 560

 His Ala Thr Cys Lys Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys
 565 570 575

 Lys Ser His Tyr Val Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu
 580 585 590

 Pro Ile Asp Arg Cys Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala
 595 600 605

 Lys Cys Val Asp Leu His Phe Gln Asp Thr Thr Val Gly Val Phe His
 610 615 620

 Leu Arg Ser Pro Leu Gly Gln Tyr Lys Leu Thr Phe Asp Lys Ala Arg

625

630

635

640

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660 665

<210> 17
<211> 3625
<212> DNA
<213> Homo sapiens

<400> 17

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<210> 18
<211> 545
<212> PRT
<213> Homo sapiens

<400> 18
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20 25 30

Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys
35 40 45

Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
50 55 60

Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
65 70 75 80

Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn
85 90 95

Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val
100 105 110

Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile
115 120 125

Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp
130 135 140

Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser
145 150 155 160

Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr
165 170 175

Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile
 180 185 190
 Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln
 195 200 205
 Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln
 210 215 220
 Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg
 225 230 235 240
 Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys
 245 250 255
 Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp
 260 265 270
 Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg
 275 280 285
 Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu
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 Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp
 305 310 315 320
 Ala Ser Gly Glu Cys Gly Ser Cys Val Asn Thr Pro Ser Cys Pro Arg
 325 330 335
 Trp Ser Lys Pro Lys Gly Val Lys Gln Lys Cys Leu Tyr Asn Leu Pro
 340 345 350
 Phe Lys Arg Asn Leu Glu Gly Cys Arg Glu Arg Cys Ser Leu Val Ile
 355 360 365
 Gln Ile Pro Arg Cys Cys Lys Gly Tyr Phe Gly Arg Asp Cys Gln Gly
 370 375 380
 Glu Gly Ala Ser Ser Pro Leu Ala Thr Leu Lys Val Ser Ala Leu Ile
 385 390 395 400
 Ser Thr Arg Pro Pro Glu Ser Val Asn Ala Thr Pro Ala Ser Met Gly
 405 410 415
 Arg Arg Val Arg Cys Ala Gly Arg Gly Asp Leu Gly Leu Ile Val Cys
 420 425 430
 Pro Val Ala Ala Gln Thr Thr Asp Ser Ala Met Met Ala Ser Arg Ala
 435 440 445
 Pro Gly Ser Ala Ser Val Lys Arg Gly Gly Gln Ala Pro Arg Val Thr
 450 455 460
 Leu Arg Gln Phe Cys Leu Gln Cys Val Arg Leu Leu Val Leu Leu Met
 465 470 475 480

Pro Pro Val Arg Arg Thr Thr Arg Val Ser Val Thr Trp Ile Met Lys
485 490 495

Val Thr Glu Ser His Ala Gln Leu Trp Ile Ser Ala Asn Arg Thr Thr
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Gly Ala Val Gln Arg Trp Pro Asp Ala Pro Arg Arg Ala Arg Arg Ser
515 520 525

Pro Ala Ala Ala Arg Arg Asp Thr Lys Gly Thr Gly Thr Ala Ala Gln
530 535 540

Arg
545

<210> 19
<211> 1577
<212> DNA
<213> Homo sapiens

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<210> 20
<211> 334
<212> PRT
<213> Homo sapiens

<400> 20
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Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys			
35	40	45	
Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp			
50	55	60	
Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln			
65	70	75	80
Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn			
85	90	95	
Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val			
100	105	110	
Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile			
115	120	125	
Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp			
130	135	140	
Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser			
145	150	155	160
Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr			
165	170	175	
Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile			
180	185	190	
Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln			
195	200	205	
Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln			
210	215	220	
Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg			
225	230	235	240
Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys			
245	250	255	
Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp			
260	265	270	
Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg			
275	280	285	
Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu			
290	295	300	
Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp			
305	310	315	320

Ala Ser Val Ser Pro Lys Asn Asn Ser Val Val Val Arg Glu Pro
325 330

<210> 21
<211> 2070
<212> DNA
<213> Homo sapiens

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<210> 22
<211> 280
<212> PRT
<213> Homo sapiens

<400> 22
Met Pro Arg Val Ser Ile Pro Pro Tyr Pro Ile Ala Gly Gly Val Asp
1 5 10 15

Asp Leu Asp Glu Asp Thr Pro Pro Ile Val Ser Gln Phe Pro Gly Thr

20

25

30

Met Ala Lys Pro Pro Gly Ser Leu Ala Arg Ser Ser Ser Leu Cys Arg
 35 40 45

Ser Arg Arg Ser Ile Val Pro Ser Ser Pro Gln Pro Gln Arg Ala Gln
 50 55 60

Leu Ala Pro His Ala Pro His Pro Ser His Pro Arg His Pro His His
 65 70 75 80

Pro Gln His Thr Pro His Ser Leu Pro Ser Pro Asp Pro Asp Ile Leu
 85 90 95

Ser Val Ser Ser Cys Pro Ala Leu Tyr Arg Asn Glu Glu Glu Glu
 100 105 110

Ala Ile Tyr Phe Ser Ala Glu Lys Gln Trp Glu Val Pro Asp Thr Ala
 115 120 125

Ser Glu Cys Asp Ser Leu Asn Ser Ser Ile Gly Arg Lys Gln Ser Pro
 130 135 140

Pro Leu Ser Leu Glu Ile Tyr Gln Thr Leu Ser Pro Arg Lys Ile Ser
 145 150 155 160

Arg Asp Glu Val Ser Leu Glu Asp Ser Ser Arg Gly Asp Ser Pro Val
 165 170 175

Thr Val Asp Val Ser Trp Gly Ser Pro Asp Cys Val Gly Leu Thr Glu
 180 185 190

Thr Lys Ser Met Ile Phe Ser Pro Ala Ser Lys Val Tyr Asn Gly Ile
 195 200 205

Leu Glu Lys Ser Cys Ser Met Asn Gln Leu Ser Ser Gly Ile Pro Val
 210 215 220

Pro Lys Pro Arg His Thr Ser Cys Ser Ser Ala Gly Asn Asp Ser Lys
 225 230 235 240

Pro Val Gln Glu Ala Pro Ser Val Ala Arg Ile Ser Ser Ile Pro His
 245 250 255

Asp Leu Cys His Asn Gly Glu Lys Ser Lys Lys Pro Ser Lys Ile Lys
 260 265 270

Ser Leu Phe Lys Lys Ser Lys
 275 280

<210> 23

<211> 1347

<212> DNA

<213> Homo sapiens

<400> 23

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<210> 24

<211> 182

<212> PRT

<213> Homo sapiens

<400> 24

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Pro Trp Gly Asp His Arg Glu Glu Glu Thr Gln Cys Gln Gln Asp Pro
 20 25 30

Leu Ser Asn Tyr Ile Lys Phe Arg Asp Cys Val Lys Phe Asp Ile Val
 35 40 45

Gly Tyr Gly Gly Phe Gly Met Pro Leu Thr Lys Leu Gly Gln Glu Glu
 50 55 60

Ala Leu Tyr Gln Ala Leu Lys Asn Val His Pro Asp Leu His Val Tyr
 65 70 75 80

Lys Lys Glu Phe Pro Glu Asp Phe His Leu Ala Lys His Asp Gln Val
 85 90 95

Leu Pro Ile Met Met Tyr Ala Asn Cys Gly Tyr Ser Ile Asn Gly Arg
 100 105 110

Ile Ile Met Cys Phe Asn Lys Gly Ser His Gly Phe Asp Asn Val Leu
 115 120 125

Met Asp Ile Lys Thr Ile Phe Arg Asp Phe Gly Pro Asp Phe Lys Arg
 130 135 140

Asn Arg Leu Ala Glu Pro Phe Asn Ser Ile His Ile Tyr Pro Phe Val

145

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155

160

Cys Lys Leu Leu Gly Val Thr Pro Lys Pro Thr Thr Ala Pro Trp Gln
165 170 175

Ser Pro Arg Lys Cys Ser
180

<210> 25
<211> 1683
<212> DNA
<213> Homo sapiens

<400> 25

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<210> 26
<211> 171
<212> PRT
<213> Homo sapiens

<400> 26

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Lys Asp His Ile Phe Ser Thr Ser Leu Asp Trp Gly Thr Asn Val Asp
20 25 30

Asn	Ser	Ser	Phe	Ala	Asp	Cys	Glu	Lys	Gly	Met	Arg	Asn	Gly	Pro	Asp
35							40					45			
Gly	Ile	Phe	Phe	Leu	Tyr	Leu	Gln	Gly	Asn	Lys	Ala	Ala	Ser	Ser	His
50							55				60				
Tyr	Ser	Arg	Glu	Val	Leu	Asn	Met	Arg	Val	Arg	Leu	Val	Lys	Arg	Ser
65							70			75			80		
Leu	Val	Glu	Ser	Tyr	Thr	His	Pro	Asn	Ser	Lys	Glu	Thr	Glu	Arg	Arg
85							90					95			
Glu	Asn	Ile	Asp	Thr	Val	Leu	Asn	Trp	Phe	Thr	Lys	Glu	Glu	Phe	Asp
100							105				110				
Phe	Val	Thr	Leu	Tyr	Tyr	Arg	Glu	Pro	Asp	Asn	Met	Gly	His	Arg	Phe
115							120				125				
Arg	Pro	Glu	Ala	Glu	Asn	Arg	Lys	Leu	Met	Ile	Gln	Gln	Ile	Asn	Arg
130							135				140				
Thr	Ile	Gly	Tyr	Leu	Val	Gly	Ala	Thr	Glu	Lys	His	Ser	Leu	Gln	Ser
145							150			155			160		
Thr	Ser	Ala	Ser	Ser	Ser	His	Glu	Thr	Met	Gly					
165							170								

<210> 27
 <211> 2912
 <212> DNA
 <213> Homo sapiens

<400> 27
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 <213> Homo sapiens

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Thr Asp Phe Phe Pro Cys Thr Val Thr Cys Gly Gly Tyr Gln Leu
 35 40 45

Asn Ser Ala Glu Cys Val Asp Ile Arg Leu Lys Arg Val Val Pro Asp
 50 55 60

His Tyr Cys His Tyr Tyr Pro Glu Asn Val Lys Pro Lys Pro Lys Leu
 65 70 75 80

Lys Glu Cys Ser Met Asp Pro Cys Pro Ser Ser Asp Gly Phe Lys Glu
 85 90 95

Ile Met Pro Tyr Asp His Phe Gln Pro Leu Pro Arg Trp Glu His Asn
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Pro Trp Thr Ala Cys Ser Val Ser Cys Gly Gly Ile Gln Arg Arg
 115 120 125

Ser Phe Val Cys Val Glu Glu Ser Met His Gly Glu Ile Leu Gln Val

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Cys	Asn	Leu	Phe	Asp	Cys	Pro	Lys	Trp	Ile	Ala	Met	Glu	Trp	Ser	Gln
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Cys	Thr	Val	Thr	Cys	Gly	Arg	Gly	Leu	Arg	Tyr	Arg	Val	Val	Leu	Cys
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Ile	Asn	His	Arg	Gly	Glu	His	Val	Gly	Gly	Cys	Asn	Pro	Gln	Leu	Lys
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Leu	His	Ile	Lys	Glu	Glu	Cys	Val	Ile	Pro	Ile	Pro	Cys	Tyr	Lys	Pro
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Gln	Glu	Leu	Glu	Glu	Thr	Arg	Ile	Ala	Thr	Glu	Glu	Pro	Thr	Phe	Ile
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Pro	Glu	Pro	Trp	Ser	Ala	Cys	Ser	Thr	Thr	Cys	Gly	Pro	Gly	Val	Gln
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Thr	Glu	Leu	Pro	Glu	Glu	Cys	Glu	Gly	Pro	Lys	Leu	Pro	Thr	Glu	
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Arg	Pro	Cys	Leu	Leu	Glu	Ala	Cys	Asp	Glu	Ser	Pro	Ala	Ser	Arg	Glu
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Leu	Asp	Ile	Pro	Leu	Pro	Glu	Asp	Ser	Glu	Thr	Thr	Tyr	Asp	Trp	Glu
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Tyr	Ala	Gly	Phe	Thr	Pro	Cys	Thr	Ala	Thr	Cys	Val	Gly	Gly	His	Gln
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Glu	Ala	Ile	Ala	Val	Cys	Leu	His	Ile	Gln	Thr	Gln	Gln	Thr	Val	Asn
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Asp	Ser	Leu	Cys	Asp	Met	Val	His	Arg	Pro	Pro	Ala	Met	Ser	Gln	Ala
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Cys	Asn	Thr	Glu	Pro	Cys	Pro	Pro	Arg	Trp	His	Val	Gly	Ser	Trp	Gly
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Pro	Cys	Ser	Ala	Thr	Cys	Gly	Val	Gly	Ile	Gln	Thr	Arg	Asp	Val	Tyr
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Cys	Leu	His	Pro	Gly	Glu	Thr	Pro	Ala	Pro	Pro	Glu	Glu	Cys	Arg	Asp
					420				425				430		
Glu	Lys	Pro	His	Ala	Leu	Gln	Ala	Cys	Asn	Gln	Phe	Asp	Cys	Pro	Pro
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Gly Trp His Ile Glu Glu Trp Gln Gln Cys Ser Arg Thr Cys Gly Gly
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Gly Thr Gln Asn Arg Arg Val Thr Cys Arg Gln Leu Leu Thr Asp Gly
 465 470 475 480

Ser Phe Leu Asn Leu Ser Asp Glu Leu Cys Gln Gly Pro Lys Ala Ser
 485 490 495

Ser His Lys Ser Cys Ala Arg Thr Asp Cys Pro Pro His Leu Ala Val
 500 505 510

Gly Asp Trp Ser Lys Cys Ser Val Ser Cys Gly Val Gly Ile Gln Arg
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Arg Lys Gln Val Cys Gln Arg Leu Ala Ala Lys Gly Arg Arg Ile Pro
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Leu Ser Glu Met Met Cys Arg Asp Leu Pro Gly Phe Pro Leu Val Arg
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Ser Cys Gln Met Pro Glu Cys Ser Lys Ile Lys Ser Glu Met Lys Thr
 565 570 575

Lys Leu Gly Glu Gln Gly Pro Gln Ile Leu Ser Val Gln Arg Val Tyr
 580 585 590

Ile Gln Thr Arg Glu Glu Lys Arg Ile Asn Leu Thr Ile Gly Ser Arg
 595 600 605

Ala Tyr Leu Leu Pro Asn Thr Ser Val Ile Ile Lys Cys Pro Val Arg
 610 615 620

Arg Phe Gln Lys Ser Leu Ile Gln Trp Glu Lys Asp Gly Arg Cys Leu
 625 630 635 640

Gln Asn Ser Lys Arg Leu Gly Ile Thr Lys Ser Gly Ser Leu Lys Ile
 645 650 655

His Gly Leu Ala Ala Pro Asp Ile Gly Val Tyr Arg Cys Ile Ala Gly
 660 665 670

Ser Ala Gln Glu Thr Val Val Leu Lys Leu Ile Gly Thr Asp Asn Arg
 675 680 685

Leu Ile Ala Arg Pro Ala Leu Arg Glu Pro Met Arg Glu Tyr Pro Gly
 690 695 700

Met Asp His Ser Glu Ala Asn Ser Leu Gly Val Thr Trp His Lys Met
 705 710 715 720

Arg Gln Met Trp Asn Asn Lys Asn Asp Leu Tyr Leu Asp Asp Asp His
 725 730 735

Ile Ser Asn Gln Pro Phe Leu Arg Ala Leu Leu Gly His Cys Ser Asn
 740 745 750

Ser Ala Gly Ser Thr Asn Ser Trp Glu Leu Lys Asn Lys Gln Phe Glu
 755 760 765
 Ala Ala Val Lys Gln Gly Ala Tyr Ser Met Asp Thr Ala Gln Phe Asp
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 Lys Ala Gln Pro Thr His Met Gln Trp Arg Gly Ile Gln Glu Glu Thr
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 Pro Pro Ala Ala Gln Leu Arg Gly Glu Thr Gly Ser Val Ser Gln Ser
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 Ser His Ala Lys Asn Ser Gly Lys Leu Thr Phe Lys Pro Lys Gly Pro
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 Val Leu Met Arg Gln Ser Gln Pro Pro Ser Ile Ser Phe Asn Lys Thr
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 <223> wherein n is g or a or t or c

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 <222> (1790..1791)
 <223> wherein n is g or a or t or c

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Val Tyr Ser Cys Ser Glu Gly Tyr His Leu Gln Ala Gly Ala Glu Ala
 50 55 60

Thr Ala Glu Cys Leu Asp Thr Gly Leu Trp Ser Asn Arg Asn Val Pro
 65 70 75 80

Pro Gln Cys Val Pro Val Thr Cys Pro Asp Val Ser Ser Ile Ser Val
 85 90 95

Glu His Gly Arg Trp Arg Leu Ile Phe Glu Thr Gln Tyr Gln Phe Gln
 100 105 110

Ala Gln Leu Met Leu Ile Cys Asp Pro Gly Tyr Tyr Thr Gly Gln
 115 120 125

Arg Val Ile Arg Cys Gln Ala Asn Gly Lys Trp Ser Leu Gly Asp Ser
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Thr Pro Thr Cys Arg Ile Ile Ser Cys Gly Glu Leu Pro Ile Pro Pro
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Asn Gly His Arg Ile Gly Thr Leu Ser Val Tyr Gly Ala Thr Ala Ile
 165 170 175

Phe Ser Cys Asn Ser Gly Tyr Thr Leu Val Gly Ser Arg Val Arg Glu
 180 185 190

Cys Met Ala Asn Gly Leu Trp Ser Gly Ser Glu Val Arg Cys Leu Ala
 195 200 205

Gly His Cys Gly Thr Pro Glu Pro Ile Val Asn Gly His Ile Asn Gly
 210 215 220

Glu Asn Tyr Ser Tyr Arg Gly Ser Val Val Tyr Gln Cys Asn Ala Gly
 225 230 235 240

Phe Arg Leu Ile Gly Met Ser Val Arg Ile Cys Gln Gln Asp His His
 245 250 255

Trp Ser Gly Lys Thr Pro Phe Cys Val Pro Ile Thr Cys Gly His Pro
 260 265 270

Gly Asn Pro Val Asn Gly Leu Thr Gln Gly Asn Gln Phe Asn Leu Asn
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 Asp Val Val Lys Phe Val Cys Asn Pro Gly Tyr Met Ala Glu Gly Ala
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 Ala Arg Ser Gln Cys Leu Ala Ser Gly Gln Trp Ser Asp Met Leu Pro
 305 310 315 320
 Thr Cys Arg Ile Ile Asn Cys Thr Asp Pro Gly His Gln Glu Asn Ser
 325 330 335
 Val Arg Gln Val His Ala Ser Gly Pro His Arg Phe Ser Phe Gly Thr
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 Thr Val Ser Tyr Arg Cys Thr Thr Ala Ser Thr Ser Trp Ala Thr Pro
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 Val Leu Ser Cys Gln Gly Asp Gly Thr Trp Asp Arg Pro Arg Pro Gln
 370 375 380
 Cys Leu Leu Val Ser Cys Gly His Pro Gly Ser Pro Pro His Ser Gln
 385 390 395 400
 Met Ser Gly Asp Ser Tyr Thr Val Gly Ala Val Val Arg Tyr Ser Cys
 405 410 415
 Ile Gly Lys Arg Thr Leu Val Gly Asn Ser Thr Arg Met Cys Gly Leu
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 Asp Gly His Trp Thr Gly Ser Leu Pro His Cys Ser Gly Thr Ser Val
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 Gly Val Cys Gly Asp Pro Gly Ile Pro Ala His Gly Ile Arg Leu Gly
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 Asp Ser Phe Asp Pro Gly Thr Val Met Arg Phe Ser Cys Glu Ala Gly
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 His Val Leu Arg Gly Ser Ser Glu Arg Thr Cys Gln Ala Asn Gly Ser
 485 490 495
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 Gly Thr Pro Ser Asn Ala Arg Val Val Phe Ser Asp Gly Leu Val Phe
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 Leu Leu Ser Arg His Cys Ser Val Asn Gly Thr Trp Thr Gly Ser Asp
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Gly Leu Arg Leu Gly Asn Asp Phe Arg Tyr Asn Lys Thr Val Thr Tyr
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 Ser Cys Thr Lys Asp Arg Thr Trp Asn Gly Thr Lys Pro Val Cys Lys
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 Arg Ser Ser Val Ser Phe Ser Cys His Pro Pro Leu Val Leu Val Gly
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 Ser Pro Arg Arg Phe Cys Gln Ser Asp Gly Thr Trp Ser Gly Thr Gln
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 Pro Ser Cys Ile Asp Pro Thr Leu Thr Cys Ala Asp Pro Gly Val
 740 745 750
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 Thr Val Leu Phe Arg Cys Gln Lys Gly Tyr Leu Leu Gln Gly Ser Thr
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 Thr Arg Thr Cys Leu Pro Asn Leu Thr Trp Ser Gly Thr Pro Pro Asp
 785 790 795 800
 Cys Val Pro His His Cys Arg Gln Pro Glu Thr Pro Thr His Ala Asn
 805 810 815
 Val Gly Ala Leu Asp Leu Pro Ser Met Gly Tyr Thr Leu Ile Thr Pro
 820 825 830
 Ala Arg Arg Ala Ser Pro Ser Arg Val Ala Pro Ser Thr Ala Pro Ala
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 Arg Arg Met Ala Ala Gly Gln Ala Ser Arg Pro Ser Ala Trp Gln Arg
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<212> DNA
<213> Homo sapiens

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<211> 882

<212> PRT

<213> Homo sapiens

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 35 40 45

Val Tyr Ser Cys Ser Glu Gly Tyr His Leu Gln Ala Gly Ala Glu Ala
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Thr Ala Glu Cys Leu Asp Thr Gly Leu Trp Ser Asn Arg Asn Val Pro
 65 70 75 80

Pro Gln Cys Val Pro Val Thr Cys Pro Asp Val Ser Ser Ile Ser Val
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Glu His Gly Arg Trp Arg Leu Ile Phe Glu Thr Gln Tyr Gln Phe Gln
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Ala Gln Leu Met Leu Ile Cys Asp Pro Gly Tyr Tyr Thr Gly Gln
 115 120 125

Arg Val Ile Arg Cys Gln Ala Asn Gly Lys Trp Ser Leu Gly Asp Ser
 130 135 140

Thr Pro Thr Cys Arg Ile Ile Ser Cys Gly Glu Leu Pro Ile Pro Pro
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Asn Gly His Arg Ile Gly Thr Leu Ser Val Tyr Gly Ala Thr Ala Ile
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Phe Ser Cys Asn Ser Gly Tyr Thr Leu Val Gly Ser Arg Val Arg Glu

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Glu Asn Tyr Ser Tyr Arg Gly Ser Val Val Tyr Gln Cys Asn Ala Gly			
225	230	235	240
Phe Arg Leu Ile Gly Met Ser Val Arg Ile Cys Gln Gln Asp His His			
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Trp Ser Gly Lys Thr Pro Phe Cys Val Pro Ile Thr Cys Gly His Pro			
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Gly Asn Pro Val Asn Gly Leu Thr Gln Gly Asn Gln Phe Asn Leu Asn			
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Asp Val Val Lys Phe Val Cys Asn Pro Gly Tyr Met Ala Glu Gly Ala			
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Ala Arg Ser Gln Cys Leu Ala Ser Gly Gln Trp Ser Asp Met Leu Pro			
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Thr Cys Arg Ile Ile Asn Cys Thr Asp Pro Gly His Gln Glu Asn Ser			
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Val Arg Gln Val His Ala Ser Gly Pro His Arg Phe Ser Phe Gly Thr			
340	345	350	
Thr Val Ser Tyr Arg Cys Asn His Gly Phe Tyr Leu Leu Gly Thr Pro			
355	360	365	
Val Leu Ser Cys Gln Gly Asp Gly Thr Trp Asp Arg Pro Arg Pro Gln			
370	375	380	
Cys Leu Leu Val Ser Cys Gly His Pro Gly Ser Pro Pro His Ser Gln			
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Met Ser Gly Asp Ser Tyr Thr Val Gly Ala Val Val Arg Tyr Ser Cys			
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Ile Gly Lys Arg Thr Leu Val Gly Asn Ser Thr Arg Met Cys Gly Leu			
420	425	430	
Asp Gly His Trp Thr Gly Ser Leu Pro His Cys Ser Gly Thr Ser Val			
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Gly Val Cys Gly Asp Pro Gly Ile Pro Ala His Gly Ile Arg Leu Gly			
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Asp Ser Phe Asp Pro Gly Thr Val Met Arg Phe Ser Cys Glu Ala Gly			
465	470	475	480
His Val Leu Arg Gly Ser Ser Glu Arg Thr Cys Gln Ala Asn Gly Ser			
485	490	495	

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 Gly Thr Pro Ser Asn Ala Arg Val Val Phe Ser Asp Gly Leu Val Phe
 515 520 525
 Ser Ser Ser Ile Val Tyr Glu Cys Arg Glu Gly Tyr Tyr Ala Thr Gly
 530 535 540
 Leu Leu Ser Arg His Cys Ser Val Asn Gly Thr Trp Thr Gly Ser Asp
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 Pro Glu Cys Leu Val Ile Asn Cys Gly Asp Pro Gly Ile Pro Ala Asn
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 Gln Cys Val Pro Gly Tyr Met Met Glu Ser His Arg Val Ser Val Leu
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 Ser Cys Thr Lys Asp Arg Thr Trp Asn Gly Thr Lys Pro Val Cys Lys
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 Ala Leu Met Cys Lys Pro Pro Pro Leu Ile Pro Asn Gly Lys Val Val
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 Gly Tyr Gln Leu Ser Leu Pro Ala Val Phe Thr Cys Glu Gly Asn Gly
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 675 680 685
 Pro Gly Val Pro Ser Arg Gly Arg Arg Glu Asp Arg Gly Phe Ser Tyr
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 Pro Ser Cys Ile Asp Pro Thr Leu Thr Thr Cys Ala Asp Pro Gly Val
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 Pro Gln Phe Gly Ile Gln Asn Asn Ser Gln Gly Tyr Gln Val Gly Ser
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 Thr Arg Thr Cys Leu Pro Asn Leu Thr Trp Ser Gly Thr Pro Pro Asp
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Cys Val Pro His His Cys Arg Gln Pro Glu Thr Pro Thr His Ala Asn
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Val Gly Ala Leu Asp Leu Pro Ser Met Gly Tyr Thr Leu Ile Thr Pro
820 825 830

Ala Arg Arg Ala Ser Pro Ser Arg Val Ala Pro Ser Thr Ala Pro Ala
835 840 845

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<210> 36
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<210> 37
<211> 5
<212> PRT
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<400> 37
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<210> 38
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